

Pre-dam removal monitoring in the Elwha River Basin: establishing baseline conditions for primary and secondary productivity

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In order to effectively evaluate the potential effects of dam removal on primary and secondary productivity in the Elwha River Basin, a coordinated data-collection effort is needed for establishing pre-dam removal conditions. Building on earlier monitoring work conducted by the Lower Elwha Tribe and the USGS in the mid-90s, we began collecting baseline data in the summer of 2004. In order to sample mainstem, tributary, and side channel habitats below, between, and above the dams, data collection was coordinated amongst NOAA, the USGS, and the Lower Elwha Klallam Tribe. The focus of this first year of data collection was on standardizing data collection protocols, collecting a representative number of samples from varied habitats, and on establishing long-term monitoring locations. Along with physical habitat characterization, at each of our monitoring sites we collected benthic invertebrates, periphyton, and water chemistry samples. Based on this collaborative research effort, we will determine adequate sample size, appropriate spatial distribution of samples sites (lateral and longitudinal), and refine sampling protocols as necessary for ongoing dam removal monitoring.